ABSTRACT

A hashing structure including multiple sub-hashes is used to determine whether an input value matches one or more of multiple target values. These values can be of any form, such as security identifiers in an access control system. To make the determination, a hash key is obtained from the input value and multiple sub-hash indexes (one for each of the multiple sub-hashes) are generated based on the key. Values are identified from the multiple sub-hashes by indexing into the sub-hashes using respective ones of the sub-hash indexes. These values are then combined to generate a resultant hash value. Each of the multiple target values corresponds to one of multiple portions of the resultant hash value. If the portion corresponding to one of the target values has a particular value, then that target value is a likely match and is compared to the input value to determine if indeed the two match. This comparison can then be repeated for each target value with a corresponding portion in the resultant hash value that has the particular value.